

THE UNIVERSITY OF CHICAGO

100

temperatures for ED-6 and ED-5 as a vacuum desiccator (50-100 mm Hg) after filling. ED-6 was then put in a vacuum desiccator for 24 hr at 60C, followed by 12 hr at 120C. Maleic anhydride was used as a hardener. The mechanical and optical properties were determined by transparent transference with uniaxial stretching and also by operational tests. The EDP and EDL have a smaller modulus of elasticity and a larger deformation value than ED-6. To improve the resins, modifiers (high-molecular resins and monomeric plastifiers) were added in weight of 10-100% of the basic resin. For each modifier a % addition exists for producing a maximum degree of relaxation. The relationship between the stress, deformation, and optical properties of these coatings tends toward a simple proportionality, and the resins can be used after preliminary calibrations. The composition and preparation technology for EDP and EDL was developed, permitting this coating to be used for studying deformations up to 7% (and, with a modifier, deformations up to 12%). Polyurethral rubber coatings are stable for large deformation, but a satisfactory glue for tightly binding the coating to the test member was not available. A glue was developed from epoxy resin ED-5 which firmly binds the rubber layer for deformations up to 30%. The aliphatic epoxy resin EDG was added to a standard epoxy cold-hardening glue. It served as a plastifier and increased the adhesive quality of the glue. An example of deformation studies using these materials is given. Orig. art. has: 1 table and 2 figures.

Card 2/3

L 29979-65

ACCESSION NR: AP5005021

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE:

NO REF SOV: 005

OTHER: 001

Card 3/3

ACC NR: AT700001

SOURCE CODE: UR/0000/66/000/000/0139/0140

AUTHOR: Mozhanskaya, A. F.

ORG: none

TITLE: Polymers as optically active coating materials

SOURCE: Vsesoyuznaya konferentsiya po polarizatsionno-opticheskomu metodu issledovaniya napryazheniy. 5th, Leningrad, 1964. Polarizatsionno-opticheskiy metod issledovaniya napryazheniy (Polarizing-optical method of investigating stresses); trudy konferentsii. Leningrad, Izd-vo Leningr. univ., 1966, 139-140

TOPIC TAGS: resin, photoelasticity, surface active coating, refractory coating

ABSTRACT: Present photoelasticity coating materials such as the ED6 epoxv, and EDP and EDL resins break down under deformations of 2--7% and 6--7%, respectively. To make these materials suitable for application in work pieces subject to large deformations it is proposed that such softeners as dibutyl-phthalate, MGF-9 polyester, and DEG aliphatic epoxy resins be used. In tests subjecting these materials to constant deformation for 10 min it was established that the relationship between stresses, strains, and optical properties are proportional in these softeners, but unfortunately are not time stable in the case of the DEG resin softener. However, the addition of the DEG resin to epoxy adhesives increased their adhesiveness, and decreased their viscosity and the time necessary for them to harden when applied to

Card 1/2

ACC NR: AT7002101

a work piece. The utilization of these adhesives together with the SKU-6 polyethyl  
caouchuk photoelastic coatings increased the range of measurable deformations to 30%.  
Orig. art. has: 2 figires.

SUB CODE: 11/ SUBM DATE: 14Jun66/ ORIG REF: 001

Card 2/2

Mozhar, B.S.

BODYAKIN, N.F., dotsent; MOZHAR, B.S., kandidat meditsinskikh nauk;  
YURKEVICH, A.Ya., kandidat meditsinskikh nauk; BOBROV, S.M.,  
Mladshiye nauchnye sotrudniki; HUSYAYEVA, T.P.; KURBANOV, vrach;  
IVANOVA, V.P., fel'dsher.

Prevention of suppurative skin diseases among cotton workers.  
Vest.ven. i derm. no.4:16-18 J1-Ag '55. (MLRA 8:12)

1. Is Turkmenskogo nauchno-issledovatel'skogo kozhno-venero-  
logicheskogo instituta (dir.-dotsent N.F.Rodyakin)  
(PYODERMA, prevention and control,  
in cotton workers)  
(OCCUPATIONAL DISEASES,  
pyoderma in cotton workers, prev.)

RODYAKIN, M.F., dotsent; MOZHAR, B.S., kand. med. nauk; YURKHEVICH, A.Ya.,  
kand. med. nauk; BOBROV, S.M., mlad. nauch. sotr; RUSYAYEVA, T.P.,  
mlad. nauch. sotr; KURBANOV, A.K., trach; GADZHIYEV, M.G., vrach;  
VASIL'YEVA, O.A., sestra.

Use of adhesive tape caps in treating dermatomycosis under rural  
conditions in Turkmenia. Vest. ven. i derm. no.5:48-50 S-O '55.

(MLRA 9:1)

1. Iz Turkmenskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo  
instituta (dir.-dotsent N. F. Rodyakin).

(SKIN, diseases,

fungus dis., ther. use of adhesive tape cap in rural  
conditions in Russia)

(RURAL CONDITIONS,

in Russia, ther. of fungus dis. of skin, use of adhesive  
tape cap)

(BANDAGING AND DRESSING,

adhesive tape cap, use in ther. of fungus dis. of skin  
in rural conditions in Russia)

MOZHAR, I.V., kandidat tekhnicheskikh nauk.

Rolling of an inflated rubber drum. Trudy Inst.torf. AN BSSR 4:  
122-130 '55. (MLBA 9:3)

(Peat machinery)



MOZHAR, I.V., kandidat tekhnicheskikh nauk

Turning cylindrical peat by means of a pneumatic rubber cylinder.  
Torf.prom. 32 no.3:14-17 '55. (MLRA 8:6)

1. Institut torfa Akademii nauk BSSR.  
(Peat machinery)

MOZHAR, I.V.

VL-1 blade-type ridger developed by the Peat Institute of  
the Academy of Sciences of the White Russian S.S.R. Trudy Inst.  
torf. AN BSSR 6:397-399 '57. (MIRA 11:7)  
(Peat machinery)

MOZHAR, I.V., kand. tekhn. nauk.

Vl-1 ridger for milled peat. Torf. prom. 35 no.7:22-24 '58. (MIRA 11:11)

1. Institut torfa AN BSSR.  
(Peat machinery)

MOZHAR, I.V.; FEDOROV, Ye.A.

Shear and rolling resistance of cylindrical peat blocks from the  
surface of spreading fields. Trudy inst. turf. AN BSSR 8:199-206  
'59. (MIRA 13:12)

(Peat)

MIROMENKO, A.V.; SPIRIDONOVA, G.I.; MOZHAR, T.A.

Changes in the composition and amount of alkaloids in the yellow  
lupine (*Lupinus luteus* L.) during its growth and development. Dokl.  
AN BSSR 6 no.4:260-262 Ap '62. (MIRA 1584)

1. Institut biologii AN BSSR. Predstavleno akademikom AN BSSR  
T.M.Godnevyam.

(LUPINE) (ALKALOIDS)

MIRONENKO, A.V.; SPIRIDONOVA, G.I.; MOZHAR, T.A.

Change in the composition and content of alkaloids in the blue lupine (*Lupinus angustifolius*) during its growth and development. Dokl. AN BSSR 7 no.4:262-265 Ap '63.  
(MIRA 16:11)

1. Institut biologii AN BSSR. Predstavleno akademikom AN BSSR T.N. Godnevym.

MIRONENKO A.V. [Mironenka, A.V.]; SPIRIDONOVA, G.I. [spirydonava, G.I.];  
BEREZHNAYA, L.I.; ANCKHINA, V.I.; MOZHAR, P.A.

Restoration of alkaloid biosynthesis and lupine following  
the intervarietal crossing of alkaloidless (forage) varieties.  
Vestsi AN BSSR. Ser. bial. nav. no.1:69-72 '66.

(MIRA 18-1)

MOZHAROV B.P.

MOZHAROV, B.P., inzh.

LMS-5-0 flax thresher. Sel'khoz mashina no.9:20-22 S '57.(MLBA 10:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya.

(Flax--Harvesting) (Threshing machines)



DUDIN, V.F., ZENKOV, F.D., MOZHAROV, L.F.

New method of determining the elasticity (Young's modulus) of  
rocks. Uch. zap. GGPI no.8:133-138 '58. (MIRA 13:8)  
(Rocks) (Elasticity)

LYUBCHENKO, A.P.; MOZHAROV, M.V.; BOBRO, Yu.G.

Autoradiographic and radiometric investigation of modified  
cast iron with globular graphite. Fiz. met. i metalloved.  
12 no.2:233-239 Ag '61. (MIRA 14:9)  
(Cast iron--Metallography)

LYUBCHENKO, A.P., kand.tekhn.nauk; BOERO, Yu.G., kand.tekhn.nauk; MOZHAROV,  
M.V., inzh.

Radiography and radiometry of inoculated cast iron with spheroidal  
graphite. Metalloved. i term. obr. met. no.8:15-17 Ag '62.  
(MIRA 15:11)

(Cast iron--Metallography)

LYUBCHENKO, A.P.; MOZHAROV, M.V.

Diffusion and the microdistribution of cerium in iron and cast  
iron. Fiz. met. i metalloved. 14 no.1:61-67 J1 '62. (MIRA 15:7)  
(Iron—Metallography) (Cerium—Isotopes)

LYUBCHENKO, A.P.; SHERMAN, D.G.; MOZHAROV, M.V.

Growth of the graphitic phase during the crystallization of cast  
iron. Lit. proizv. no.6:34-37 Je '63. (MIRA 16:7)

(Cast iron—Metallography)  
(Crystallization)

LYUBCHENKO, A.P.; MOZHAROV, M.V.

Phosphorus distribution in microvolumes of cast iron with various forms of graphite crystal surfaces. Fiz.mat.1 metalloid. 15 no.4:580-583 Ap '63. (MIRA 16:6)

1. Khar'kovskiy zavod transportnogo mashinostroyeniya imeni V.A.Malysheva. (Cast iron—Metallography) (Phosphorus)

LYUBCHENKO, A.P.; MOZHAROV, M.V.; SHERMAN, D.G.

Despheroidizing effect of bismuth on the graphite phase in  
cast iron. Fiz. met. i metalloved. 17 no.6:853-861 Je '64.  
(MIR: 17:8)

1. Khar'kovskiy zavod transportnogo mashinostroyeniya imeni  
Malysheva.

LYUBCHENKO, A.P.; MEZHAROV, M.V.; SHERMAN, D.G.; SOLOV'YEVA, Z.P.

Microdistribution of elements in cast iron altering the fac-  
cut of graphite crystals. Fiz. met. i metalloved. 13 no.4 1964  
572 0 '64. (Mikr 13 4)

1. Khar'kovskiy zavod transportnogo mashinostroyeniya imeni  
Malysheva.



BAKAKIN, G.N., inzh.; LYUBARSKIY, I.M., kand. tekhn. nauk;  
LYUBCHENKO, A.P., kand. tekhn. nauk; MOZHAROV, M.V., inzh.;  
TUNIK, A.A., inzh.

Comparative laboratory wearing tests of cast irons with globular  
and flaky graphite. Vest. mashinostr. 44 no.6:62-64 Je '64.  
(MIRA 17:8)

LYUBCHENKO, A. A.; MOZHAROV, M. V.

Distribution of sulfur and phosphorus in inoculated cast iron.  
Lit. proizv. no. 4:19-21 Ap '64. (MIRA 18:7)

LYUBCHENKO, A.P.; SHERMAN, D.G.; MOZHAROV, M.V.

Character of the microdistribution of cerium in cast iron.

Lit. proizv. no.3:48 Mr '65.

(MIRA 18:6)

ACC NR: AP6036966

(A, N)

SOURCE CODE: UR/0181/66/008/011/3248/3253

AUTHOR: Geguzin, Ya. Ye.; Mosharov, M. V.; Dobrovinskaya, Ye. R.; Lev, I. Ye.

ORG: Kharkov State University (Khar'kovskiy gosudarstvennyy universitet); All-Union Scientific Research Institute of Single Crystals, Kharkov (Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov)

TITLE: Diffusion of cations along boundaries in alkali halide bicrystals

SOURCE: Fizika tverdogo tela, v. 8, no. 11, 1966, 3248-3253

TOPIC TAGS: physical diffusion, alkali halide, activation energy

ABSTRACT: The self-diffusion and diffusion of  $\text{Ag}^+$ ,  $\text{Tl}^+$ ,  $\text{K}^+$ ,  $\text{Na}^+$ ,  $\text{Ni}^{++}$  and  $\text{Ca}^{++}$  cations along boundaries in KCl, NaCl and KI bicrystals grown by the Kyropoulos method were studied. The distribution of diffusing cations in the boundary region was determined by autoradiography. The role of defects in the diffusion process was described by their diffusional penetrability  $\Phi = DS$ , where  $D$  is the diffusion coefficient and  $S$  the cross-sectional area of the diffusion front. The temperature dependence  $\Phi = \Phi_0 e^{-\frac{Q_0}{RT}}$ , where  $Q_0$  is the activation energy of boundary diffusion of univalent ions, was determined experimentally.  $Q_0$  was found to be close to the activation energy of diffusion along an edge dislocation  $Q_d$  and to the activation energy of volume diffusion  $Q_v$  in the low-temperature (impurity) region. It is postulated therefore

Card 1/2

ACC NR: AP6036966

that the elementary diffusion event is similar in all three cases and consists in the jump of the atoms into the neighboring vacancy. It is concluded that the degree of looseness of the boundary is largely independent of temperature, assuming that the boundary width is substantially less dependent on temperature than is the diffusion coefficient. Orig. art. has: 6 figures, 1 table and 6 formulas.

SUB CODE: 20/ SUBM DATE: 11Apr66/ ORIG REF: 004/ OTH REF: 014

Cord 2/2

MOZHAROV, N.A., inzh.

Experimental investigation of distribution of moisture in a flow of moist steam with low moisture content. Izv.vys.ucheb.zav.; energ. no.12:83-90 D '58. (MIRA 12:3)

1. Moskovskiy ordena Lenina energeticheskiy institut.  
(Steam) (Moisture)

MOZHAROV, N. A., Candidate Tech Sci (diss) -- "Experimental-theoretical investigation of the laws of disruption of a film in the movement of a gas-liquid stream in separation equipment". Moscow, 1959. 18 pp (Min Higher Educ USSR, Moscow Order of Lenin Power Engineering Inst), 150 copies (KL, No 24, 1959, 139)

W/59-2-8/18

AUTHOR: Mozharov, I.A., Engineer

TITLE: An Investigation of the Critical Speed at Which a Film of Moisture Breaks away from the Wall of the Steam Pipe (Issledovaniye kriticheskoy skorosti sryva plenki vlazi so stenki paroprovoda)

PERIODICAL: Teploenergetika, 1959, Nr 2, pp 50-53 (USSR)

ABSTRACT: When wet steam flows in a pipe, part of the water is deposited on the pipe walls and part is carried along by the steam. The ratio of the amount of water on the walls to that in the steam flow depends on the speed of the steam flow, its pressure and the wetness of the steam. At low steam speeds almost all the separated water is on the tube walls and flows as a film. As the steam speed is increased a critical speed is reached at which drops of water begin to break away from the pipe walls. As the steam speed rises the amount of water left on the walls is reduced and at several times the critical speed almost none is left. The critical speed of film breakaway is usually determined by means of Ramzin's formula (1). Recent experimental work has shown that this formula can give results that are much

Card 1/5



NOV/96-59-2-5/18

An Investigation of the Critical Speed at Which a Film of  
Moisture Breaks Away from the Wall of the Steam Pipe

too high and accordingly Kemel man has proposed formula (2) to determine the critical speeds. Neither of these formulae allow for the wetness of the steam or the pipe diameter, though both these factors are important. It is then shown that the critical speed of breakaway must depend on Reynolds number and consequently on the pipe diameter and the steam wetness. Kapitsa, in considering downward flow of liquid and upward flow of gas has derived a formula for the gas speed at which the gas begins to pick up liquid. Applying Kapitsa's formula to the conditions of wet steam flow in a pipe, formula (7) is derived for the critical speed of film breakaway. This formula allows for the pipe diameter and steam wetness. Special rig tests were made at the Moscow Power Institute to check this formula and to determine how the critical speed depended on such factors as the pressure and wetness of the steam. The empirical formula (8) was derived from the results of these tests and other published work. This formula is

Card 2/5

1974/96-55-2-2/12

An Investigation of the Critical Speed at Which a Film of  
Moisture Breaks Away from the Wall of the Steam Pipe

analogous with Ramzin's but the influence of steam wetness and pipe diameter is less than that given by formula (7). The test rig used is described and illustrated diagrammatically in fig.1. The tests were made on a vertical section of steam pipe with an internal diameter of 25 mm containing two simple water traps. Steam wetness was controlled by water injection. Determinations were made of the salt contents of samples of water removed from the traps. In order to study the influence of pressure on the critical speed, tests were made at pressures of 8, 16 and 45 atm with steam wetness in the range 0.09 to 0.11. The results are plotted in fig 3 and it will be seen that the bend in the separation curve, which corresponds to the critical speed, occurs at different steam speeds for different pressures. A further series of tests was made to assess the influence of steam wetness on the critical speeds. The tests were made in the wetness range of 0.5 to 15% and the pressure range of 7 to 46 atm. The results for different values of steam wetness at a pressure of

Card 3/5

BOV/96-59.2-8/18

An Investigation of the Critical Speed at Which a Film of  
Moisture Breaks Away from the Wall of the Steam Pipe

7.5 atm are given in Fig 4. The results of tests at various pressures and wetnesses are given in Fig 5. The general shape of the curves confirms the formula derived for the critical speed. However, it was found that quite a lot of water remains on the pipe walls even at very high speeds far exceeding the critical speed. The various formulae that have been proposed for determination of the critical speed are compared in Fig 6, on which available experimental data is also plotted. It will be seen that Ramzin's formula gives high results if the steam wetness is greater than 1% and good agreement with formula (8) for steam wetnesses of 1 to 2%. Formula (2) gives low values of critical speed particularly for low wetnesses of 0.5 to 2%. Formula (7) gives values that are too low. The curve constructed for a steam wetness of 30% using formula (8) is in good agreement with the experimental data. Formula (8) is accordingly recommended for use in determining the limiting permissible load on a separator and for

Card 4/5

SOV/96-59-2-8/18

An Investigation of the Critical Speed at Which a Film of Moisture  
Breaks Away from the Wall of the Steam Pipe

calculations on steam sampling devices in which the  
rate of steam flow should be considerably above the  
critical speed. There are 6 figures and 4 Soviet  
references.

ASSOCIATION: Moskovskiy Energeticheskiy Institut (Moscow Power  
Institute)

Card 5/5

MOZHAROV, N.A., inzh.; PANASENKO, M.D., kand. tekhn.nauk

Results of the calibration of devices for taking steam samples.

Elek. sta. 30 no.3:28-31 Mr '59.

(MIRA 12:5)

(Boilers--Equipment and supplies)

MOZHAROV, N.A., kand.tekhn.nauk

Maximum permissible rate of steam flow through a separator.  
Teploenergetika 8 no.4:60-63 Ap '61. (MIRA 14:8)

1. Moskovskiy energeticheskiy institut.  
(Separators (Machines))

SEROV, Ye.P., kand.tekhn.nauk; MOZHAROV, N.A., kand.tekhn.nauk; SMIRNOV,  
O.K., kand.tekhn.nauk

Analyzing the efficiency of basic circuits of separator type once-  
through boilers. Teploenergetika 8 no.12:16-21 D '61.  
(MIRA 14:12)

1. Moskovskiy energeticheskiy institut.  
(Boilers) (Electric power plants)

KOVALEV, A.P., doktor tekhn. nauk, prof.; LELEYEV, N.S.; KHZMALYAN, D.M.; MAKSIMOV, V.M.; PANASENKO, M.D.; KAGAN, Ya.A.; MODEL', Z.G.; TROYANSKIY, Ye.A.; VILENSKIY, T.V.; RYZHKIN, V.Ya.; MOZHAROV, N.A.

[Atlas of boiler systems (supplement)] Atlas kotel'nykh agregatov (dopolnenie). [by] A.P.Kovalev i dr. Moskva, Gosenergoizdat, 1963. 22 fold. (MIRA 17:3)



TROYANSKIY, Yevgeniy Aleksandrovich; MOZHAROV, N.A., red.

[Boiler metals and the calculation of the strength of  
boiler components.] Metally kotlostroeniia i raschet proch-  
nosti detalei parovykh kotlov. Izd.2., perer. Moskva, Izd-  
vo "Energiia," 1964. 191 p. (MIRA 17:7)

SEROV, Ye.P., kand. tekhn. nauk; MOZHAROV, N.A., kand. tekhn. nauk;  
PULELA KAMESVARA SARMA, inzh.

Generalization of experimental data on critical heat currents  
in a forced flow of a steam and water mixture. Izv. vys.  
ucheb. zav.; energ. 8 no.11:44-49 N '65. (MIRA 18:11)

1. Moskovskiy ordena Lenina energeticheskiy institut. Pred-  
stavlena kafedroy kotel'nykh ustanovok.

MOZHAROV, N.

From pages of transportation journals of countries of  
People's Democracy. Mor.flot 17 no.8:31-32 Ag '57. (MIRA 10:10)

1. Nauchnyy sotrudnik Instituta Kompleksnykh transportnykh  
problem AN SSSR.

(Europe, Eastern--Merchant marine)

MOZHAROV, N., nauchnyy sotrudnik.

Review of the Yugoslav journal "Pomorstvo." Mor. flot 18 no.1:30  
Ja '58. (MIRA 11:1)

1. Institut kompleknykh transportnykh problem AN SSSR.  
(Yugoslavia--Merchant marine)

*МОЗХАРОВ, Н.*

MOZHAROV, N., nauchnyy sotrudnik

Shipbuilding in the German Democratic Republic during the second  
five-year plan (from "Schiffbautechnik" no. 1 1957). Mor.flot 18  
no.2:26-27 P '58. (MIRA 11:2)

1. Institut kompleksnykh transportnykh problem AN SSSR.  
(Germany, East--Shipbuilding)

MOZHAROV, N., nauchnyy sotrudnik

Survey of marine journals in the German Democratic Republic.  
Mor. flot 18 no.5:29-30 My '58. (MIRA 11:6)

1. Institut kompleksnykh transportnykh problem AN SSSR.  
(Germany, East--Merchant marine--Periodicals)

MOZHAROV, N., nauchnyy sotrudnik

Problems of the merchant marine in the Rumanian People's  
Republic. Mor. flot 18 no.9:23-24 S '58. (MIRA 11:10)

1. Institut kompleksnykh transportnykh problem AN SSSR.  
(Rumania--Merchant marine)

KIBAL'CHICH, Oleg Alekseyevich; MOZHAROV, Nikolay Dmitriyevich; SLAVIN-BO-  
ROVSKIY, Boris Borisovich; SAVEL'YEV, A.A., red.; KSENOFONTOVA,  
Ye.F., red.; LAVRENOVA, N.B., tekhn.red.

[Shipping in the people's democracies] Morskoi transport stran  
narodnoi demokratii. Pod red. A.A.Savel'eva. Moskva, Izd-vo  
"Morskoi transport," 1960. 196 p. (MIRA 13:10)  
(Communist countries--Shipping)



KORYAKIN, Sergey Fedorovich, kand. ekon. nauk, dots.; BEND SHTEYL, Iosif L'vovich, kand. ekon. nauk, dots.; Prinsipal uchastiye: ELLINSKIY, Yu.F., st. prep.; SHRABSHTEYN, Ye.A., dots., retsenzent; CHERKASOV-TCHISIZOV, A.A., st. prepod., retsenzent; FILYUKOV, M.A., st. prepod., retsenzent; POZHAROV, N.D., kand. ekon. nauk, retsenzent; AKAL'SKIY, I.I., kand. ekon. nauk, retsenzent; KEMER, B.A., inzh., retsenzent; PETRUCHIK, V.A., kand. ekon. nauk, red.; GUBERMAN, R.L., kand. ekon. nauk, red.; RODIN, Ye.P., kand. ekon. nauk, red.; DUBCHAK, V.Kh., inzh., red.; MARTIROSOV, A.Ye., inzh., red.; FALYUSHKIN, V.A., inzh., red.; BELOV, M.I., doktor geogr. nauk, red.; SINITSYN, M.T., inzh., red.; KOLESNIKOV, V.G., kand. tekhn. nauk, red.; ZAMAKHOVSKIYA, A.G., kand. ekon. nauk, red.; KUZ'MIN, T.P., inzh., red.; NEMCHIKOV, V.I., kand. tekhn. nauk, red.; GEKHTSARG, Ye.A., inzh., red.; FILIPPOV, K.D., red.; K.UGLOVA, Ye.A., red.

[Economics of the merchant marine] Ekonomika morskogo transporta. Izd.2., perer. i dop. Moskva, Transport, 1964. (MIRA 18:1)  
527 p.

MOZHAROV, N. D.

Maritime transport in the People's Democracies, [by] O.A. Kibal'chich,  
N.D. Mozharov [and] B.B. Slavin-Borovskiy. New York, USJPRS, 1961.  
147 p. illus., graphs, maps, tables. (JPRS: 11417; CSO: 2026-S)  
Translated from the original Russian: Morskoy transport stran Narodnoy  
Demokratii, Moscow, 1960.  
Bibliography: P. 142-147

L 23036-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t) IJP(c) JD/US	
ACC NR: AT6008670	(N) SOURCE CODE: UR/0000/65/000/000/0250/0255
AUTHORS: <u>Mozharovskiy, N. S. (Kiev); Vasilenko, N. V. (Kiev)</u>	
ORG: none	45 8+
TITLE: Investigation of thermal fatigue under combined stress conditions	
SOURCE: <u>Vsesoyuznoye soveshchaniye po voprosam staticheskoy i dinamicheskoy prochnosti materialov i konstruktsionnykh elementov pri vysokikh i niskikh temperaturakh, 3d.</u>	
Termoprochnost' materialov i konstruktsionnykh elementov (Thermal strength of materials and construction elements); materialy soveshchaniya. Kiev, Naukova dumka, 1965, 250-255	
TOPIC TAGS: stress analysis, fatigue strength, <sup>thermal fatigue,</sup> fatigue test, unsteady heat transfer/ <u>1Kh18N9T steel, EI10 steel, EI607A steel</u>	
ABSTRACT: The effect of irreversible energy absorption S on the longevity of a metallic part under cyclic thermal loading was investigated. Specimens made of steels 1Kh18N9T, EI10, and EI607A were tested over a temperature range of 370--870K. Two types of hysteresis loops were obtained: a parabolic one and an elliptical one. The elliptical loop showed a large increase in the magnitude of the maximum stress in the specimen. A set of S versus N (number of cycles before failure) curves was obtained for all three specimens under both single axis and two-three axes unsteady thermal stress conditions. The product NS for each case is expressed by	
Card 1/2	

L 23036-66

ACC NR: AT6008670

$$N^*S^* = \frac{M}{s_0^{(p+1)}(B-1)}$$

$$NS = \frac{M}{s_0^{(p+1)}(B-1)}$$

where

$$M = \frac{A}{D^{B-1}}$$

The correction from simple to combined stress condition is then given by the multiplication factor

$$\gamma = \left( \frac{s_0}{s_0^*} \right)^{(p+1)(B-1)} = \left( \frac{s_{02}}{s_0} \right)^{(p+1)(B-1)}$$

Orig. art. has: 11 equations, 4 figures, and 2 tables.

SUB CODE: 11, 13/ SUBM DATE: 19Aug65

Card 2/2 IC

ACC NR: AR6023249

SOURCE CODE: UR/0044/66/000/003/V056/V056

AUTHOR: Mozharov, R. V.

TITLE: Statistical study on minimization of Boolean functions

SOURCE: Ref. zh. Matematika, Abs. 3V202

REF SOURCE: Sb. Diskretn. analiz. Vyp. 5. Novosibirsk, 1965, 31-33

TOPIC TAGS: Boolean function, minimization, computer calculation

ABSTRACT: Results of a computerized study on minimization of random Boolean functions are described. [Translation of abstract]

SUB CODE: 12, 09

UDC: 519.95

Card 1/1

MOZHAROV, R.V. (Moskva)

Sign of the completeness of a system of functions in the algebra  
of logic. Avtom. i telemekh. 26 no.9:1644-1645 S '65.

(MIRA 18:10)

S/07-01/034/007-024/042 XX  
B004, 0068

AUTHORS: Izmaylov, N. A. and ~~Mozharova, T. V.~~  
TITLE: Thermodynamic Properties of Electrolytes in Non-aqueous  
Solutions. X. Dissociation Constants of Bases in Acetone  
and in a 90% Acetone - Water Mixture  
PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 7,  
pp. 1543-1552

TEXT: The aim of this work was to determine the effect of solvents on the strength of bases in order to simplify the proper choice of solvents for analytical purposes. The authors proceed from the fact that the dissociation of bases takes place according to the same scheme as that of acids: 1) formation of addition products between the molecules of the base and the solvent; 2) dissociation; and 3) association to ion pairs in media with low dielectric constants. The equation for the normal dissociation constant derived by N. A. Izmaylov (Ref. 14) reads:  $K_{\text{norm}} = (K_B/K_{BM}) a_M^{\gamma'} a_{BM}^{\gamma'} / (1 + K_{\text{non-diss}}^* K_{\text{assoc}}) \exp(\sum A_X/RT)$  (5), where  $K_B$  is the basicity constant  
Card 1/4

Thermodynamic Properties of Electrolytes in Non-aqueous Solutions. X. Dissociation Constants of Bases in Acetone and in a 90% Acetone - Water Mixture

S/076 '60/034/007/024/042/XX  
B004/B068

of the base in vacuo;  $K_{BM}$  is the basicity constant of the lyate ion;  
 $\gamma'_{OBM_n} = K_{non-diss} \exp(A_{KB}/RT)$  is the activity coefficient of the non-dissociated base molecules;  $A_{KB}$  is the free condensation energy of the base; and  $\sum A_X = \sum (z^2 e^2 N / 2r) (1 - 1/D) + \sum A_C / RT$  is the total chemical solvation energy of the ions including the lyate ion. Acetone and a 90% mixture of acetone and water were used as a highly differentiating solvent, and the dissociation constants  $pK_B$  of the following compounds were determined: aniline, m- and p-toluidine, m-chloroaniline, p-bromoaniline, m-nitroaniline, p-nitroaniline,  $\alpha$ -naphthyl amine, dimethyl aniline, diethyl aniline, pyridine,  $\alpha$ -picoline,  $\alpha$ -bromopyridine, piperidine, quinoline, codeine, narcotine, papaverine, morphine, diethyl amine, diphenyl amine, and p-chloroaniline. The  $pK_B$  values were determined by measuring the e.m.f. of the chain:

Card 2/4



Thermodynamic Properties of Electrolytes in  
Non-aqueous Solutions. X. Dissociation  
Constants of Bases in Acetone and in a 90%  
Acetone - Water Mixture

S/076, 034/007/024/042/XX  
B004, B048

glass electrode  $\left| \begin{array}{c} B_O \\ B_O \cdot HClm \end{array} \right| \left| \begin{array}{c} B_X \\ B_X \cdot HClm \end{array} \right|$  glass electrode. The glass electrodes

were used because, according to Ref. 19, neither the hydrogen nor the  
quinhydrone electrode has a stable potential in solutions of amines. The  
e.m.f. of the chain is calculated from the relation:

$$E = 0.059 \left[ \log K_{A_{st}} + \log(a_{BH_{st}^+}/a_{B_{st}}) - \log K_{A_X} - \log(a_{BH_X^+}/a_{B_X}) \right] \cdot K_{A_{st}} \text{ and}$$

$K_X$  are the dissociation constants of the cationic acids bound to the  
standard base and the studied base. While the dissociation constant  $pK_A$   
of the cationic acids in acetone, 90% acetone, and water changes only  
little, a considerable differentiation of the different types of amines  
in acetone and 90% acetone was established. The effect of these two  
solvents on the basicity of the bases increases in the following order:  
alkaloids < primary aromatic amines < pyridine derivatives < tertiary

Card 3/4

Thermodynamic Properties of Electrolytes in  
Non-aqueous Solutions. X. Dissociation  
Constants of Bases in Acetone and in a 90%  
Acetone - Water Mixture

S/076/60/034/007/024/042/XX  
B004/B068

aromatic amines. N. D. Sokolov is mentioned. There are 2 figures, 3 tables,  
and 25 references: 13 Soviet, 8 US, 3 British, and 1 German. ✓

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo  
(Khar'kov State University imeni A. M. Gor'kiy)

SUBMITTED: October 11, 1958

Card 4/4

S/076/60/034/070/019/039/AA  
B015/B063

AUTHORS: Izmaylov, N. A. and Mozharova, T. V.

TITLE: Thermodynamic Properties of Electrolytes in Non-aqueous Solutions. XI. Dissociation Constants of Bases in Methanol. Comparison of the Strength of Bases in Various Solvents

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9, pp. 1709 - 1716

TEXT: In a previous paper, the authors have shown that acetone has a differentiating effect on the strength of various bases. The effect of methanol is described in the present paper, and, in the absence of reliable data in publications, the dissociation constants have been determined for the following bases in methanol: diethyl aniline, dimethyl aniline, pyridine, piperidine,  $\alpha$ -picoline, codeine, narcotine, papaverine, morphine, and diphenyl amine. The dissociation constants were determined by a method of emf measurement which has been described in a previous paper. The ionic strength was kept constant, and glass electrodes served as indicators since N. A. Izmaylov and A. M. Aleksandrova (Ref.8) have shown that such

Card 1/6

Thermodynamic Properties of Electrolytes in S/076/60/034/008/019/039/XX  
Non-aqueous Solutions. XI. Dissociation Con- B015/B063  
stants of Bases in Methanol. Comparison of the Strength of Bases in  
Various Solvents

electrodes are particularly convenient for measuring the activity of hydrogen ions in methanol in the pH range 2-12. The measurements were made for concentrations of 0.002 and 0.005 M. The results obtained show that methanol has a much weaker differentiating effect on the above-mentioned bases than 90% acetone. The difference between tertiary aromatic amines and pyridine bases observed in acetone could not be found in methanol. This is ascribed to the fact that alcohol molecules can act as both proton donors and acceptors, whereas acetone molecules are only acceptors. The dissociation constants of several organic bases in different solvents were intercompared on the strength of the present measurements and a number of published data. The strength of bases is lowered by all solvents except acetic and formic acids. The strength and dissociation constants of bases depend on the chemical nature of the solvent and, especially, on the solvation capacity (cf. Table 3). The differentiating effect of methanol upon the strength of bases decreases in the following order: pyridine bases, tertiary aromatic amines, primary aromatic amines, alkaloids. The differentiating effect of various solvents upon the strength of bases is

Card 2/6

Thermodynamic Properties of Electrolytes in S/076/60/034/008/019/C39/XX  
Non-aqueous Solutions. XI. Dissociation B015/B063  
Constants of Bases in Methanol. Comparison of the Strength of Bases in  
Various Solvents

explained by their molecular structure and their cations, as well as by  
the number of hydrogen atoms at the nitrogen of the amino group. There  
are 5 figures, 3 tables, and 15 references: 4 Soviet, 3 German, 4 US, and  
4 British.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo  
(Khar'kov State University imeni A. M. Gor'kiy)

SUBMITTED: October 11, 1958

Card 3/6

S/076/60/034/002/019/039/XX  
B015/B063

Text to Table 3: Relative Dissociation Constants of Bases in Various  
Solvents (standard: aniline); 1 - base; 2 - water; 3 - methanol;  
4 - acetone; 5 - acetonitrile; 6 - chlorobenzene; 7 - acetic acid  
(standard: m-toluidine); 7 - m-toluidine; 8 - p-toluidine; 9 - m-chlor-  
aniline; 10 - p-chloraniline; 11 - p-bromaniline; 12 - m-nitraniline;  
13 - p-nitraniline; 14 -  $\alpha$ -naphthyl amine; 15 - methyl aniline;  
16 - ethyl aniline; 17 - dimethyl aniline; 18 - diethyl aniline;  
19 - pyridine; 20 -  $\alpha$ -picoline; 21 -  $\alpha$ -Br-pyridine; 22 - piperidine;  
23 - quinoline; 24 - codeine; 25 - narcotine; 26 - papaverine;  
27 - morphine; 28 - diphenyl amine

Card 4/6

S/076/60/034/018/019/039/XI  
B015/B063

Таблица 3

Относительные константы диссоциации оснований в различных растворителях  
(стандарт—анилин)

Основания	$pK_{отн} = pK_x - pK_{ст}$						$\Delta pK_{отн}$			
	вода	спирт метиловый	ацетон	ацетонитрил	хлорбензол	уксусная кислота (стандарт м-толуидин)	спирт метиловый	ацетон	ацетонитрил	хлорбензол
м-Толуидин	-0,11	-0,20	-0,23	—	—	0,00	-0,09	-0,12	—	—
п-Толуидин	-0,53	-0,60	-0,63	-0,66	-0,75	0,01	-0,09	-0,13	-0,14	-0,23
м-Cl-анилин	1,08	1,50	1,07	—	1,09	-0,64	0,42	-0,01	—	-0,08
п-Cl-анилин	0,60	1,10	0,58	—	1,00	-0,37	0,50	-0,02	—	0,40
п-Br-анилин	0,69	1,20	—	1,25	—	-0,37	0,51	—	0,56	—
м-NO <sub>2</sub> -анилин	2,00	—	1,95	2,07	—	—	—	-0,05	1,07	—
п-NO <sub>2</sub> -анилин	0,56	—	2,40	—	—	-2,83	—	-0,16	—	—
α-Нафтиламин	0,16	0,70	0,50	—	—	0,03	0,09	-0,11	—	—

Card 5/6

S/076/60/034/000/019/039/XX  
B015/B063

Метиламин	9,22	—	11,25	14,7	7,26	—	—	—	—
Этиламин	8,89	—	10,9	15,2	—	—	—	—	—
Диметиламин	8,90	—	11,5	15,1	6,18	16,48	—	3,75	—
Диэтиламин	7,48	—	9,85	—	—	15,40	—	3,46	—
Пиридин	8,77	12,22	11,16	15,2	—	15,82	—	3,68	0,45
α-Пиколин	8,05	—	10,46	13,96	—	14,98	—	—	—
α-Вг-пиридин	11,37	—	—	—	—	18,15	—	—	—
Пиперидин	2,80	5,62	5,70	6,99	—	9,76	—	5,58	—
Хинолин	9,20	—	—	14,92	—	16,20	—	3,82	—
Кодеин	6,10	—	8,10	8,10	—	12,32	—	—	0,81
Наркотин	7,82	—	9,51	—	—	11,30	—	—	—
Папаверин	8,10	—	9,78	—	—	11,16	—	—	—
Морфин	6,13	—	8,13	—	—	12,40	—	—	0,84
Дифениламин	13,15	—	13,52	—	—	17,30	—	—	—

4\*

Card 6/6



RASHKOVSKAYA, Ye.A.; MOZHAROVA, T.V.; USENKO, L.T.

Study of the system  $\text{NaCl} - \text{RNH}_2 - \text{CO}_2 - \text{H}_2\text{O}$  at  $25^\circ$ . Ukr.khim.  
zhur. 28 no.2:162-167 '62. (MIRA 15:3)

1. Khar'kovskiy nauchno-issledovatel'skiy institut osnovnoy  
khimii.

(Sodium salts) (Amines) (Systems (Chemistry))

MOZHAROVA, E.N.

1956. Problem of treatment with radioactive isotopes of phosphorus and cobalt in some forms of leucosis. E. N. Mozharova and Z. T. Belugina. *Rev. Radiat. Biol.*, 1956, No. 1, 41-48; *Referat Zh. Biol.*, 1956, Abstr. No. 14977. The medical effect of radioactive P, administered in the form of a sol. of the double sodium phosphate, was investigated. The ordinary medical dose of  $^{32}\text{P}$  did not exceed 8-10 mc in the course of treatment.  $^{32}\text{P}$  showed no definite problems on treatment of leucosis and was shown to be more effective than other remedies. In unresolved forms of leucosis marked normalisation of the composition of the blood and prolonged remission were observed. A drawback to the method is the impossibility of interrupting treatment at a definite moment since there are no means of removing  $^{32}\text{P}$  from the organism. Combined treatment of severe forms of leucosis with isotopes of P and Co did not reveal any advantages. (Russian)

F. McKECHNIE

Central Sci.-Res. Roentgen-Radiol. Inst., Min. Health USSR

USSR/Human and Animal Physiology (Normal and Pathological).  
Blood. Blood Diseases.

T-3

Abs Jour : Ref Zhur - Biol., No 16, 1958, 74715

Author : Mozharova, Ye.N., Belugina, V.T.

Inst :

Title : Treatment of True Polycythemia With Radioactive Isotopes of  
Cobalt and Phosphorus.

Orig Pub : Vestn. rentgenol. i radiol., 1957, No 1, 34-40

Abstract : During treatment of patients with true polycythemia in order to obtain resistant and long remission Co<sup>60</sup> and P<sup>32</sup> were simultaneously administered to the cervical sympathetic ganglia (SG). Remission with treatment only of P<sup>32</sup> continued 2-2½ years (average total dose of P<sup>32</sup> 7.5 microcuries); with use of both agents remission was lengthened up to 5 years (average general dose 4.5 microcuries). Irradiation of the SG of the cervix is justified in serious cases with polycythemia with high hypertension and with a

Card 1/2

- 48 -

EXCERPTA MEDICA Sec 6 Vol 13/9 Internal Med Sent 59

5463. X-RAY THERAPY OF ACROMEGALY (Russian text) -Mozharova E.N. -  
PROBL. ENDOKR. 1958, 4/4 (98-103)

110 patients were examined clinically and then followed up for a prolonged period (up to 20 yr.). Deep X-ray therapy was employed. Various methods were developed and applied: irradiation of the hypophyseal-hypothalamic area, of the superior cervical sympathetic ganglia, of the thyroid gland, as well as treatment with radium by introducing it through the nasopharynx under the basilar portion of the sella turcica. These methods were used in various combinations. Different single and total doses were employed according to the indications. The clinical manifestations and variations of the course of this disease (complications by thyrotoxicosis, diabetes mellitus, etc.) were taken into consideration. Radiation treatment of acromegaly was successful. A number of serious symptoms were relieved or disappeared completely even in complicated cases (menstrual periods were re-established, vision recovered, the symptoms of diabetes and thyrotoxicosis disappeared, etc.). The patients were able to return to active life for many years. In individual approach with careful choice of method and dose, radiation treatment gives rise to no complications and should be employed before surgery. The latter should be resorted to only in radio-resistant cases. (VI, 3, 14\*)

MOZHAROVA, Ye. N. (Leningrad)

Clinical aspects and roentgenotherapy of adiposogenital dystrophy  
[with summary in English]. Probl.endok. i gorm. 4 no.6:62-67  
N-D '68. (MIRA 12:2)

1. Iz Terapevticheskoy kliniki Tsentral'nogo nauchno-issledovatel'-  
skogo rentgeno-radiologicheskogo instituta (dir. - prof. M.W. Pobe-  
dinskiy).

(FROELICH SYNDROME,  
clin. course & x-ray ther. (Rus))  
(RADIOTHERAPY, in var. dis.  
Froelich synd. (Rus))

SHIMANOVSKAYA, K.B., MOZHAROVA, Ye.N. Belugina, Z.T.

Skeletal changes in polycythemia vera [with summary in English].  
Vest. rent. i rad. 33 no.5:19-24 S-O '58 (MIRA 11:11)

1. Is Tsentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya SSSR (dir. - prof. M.N. Pobedinskiy).

(POLYCYTHEMIA VERA, pathol.  
skeletal changes (Rus))

(BONES AND BONES, pathol.  
in polycythemia vera (Rus))

**MOZHAROVA, Ye.M.; RUSANOV, A.M.; KOMAROVA, R.S.**

**Use of batyl alcohol and leukogen in radiation leucopenia. Med.**  
**rad. no.9:13-16 '61. (MIRA 15:1)**

**1. Iz Tsentral'nogo nauchno-issledovatel'skogo instituta medi-**  
**tsinskoy radiologii Ministerstva zdavookhraneniya SSSR.**  
**(RADIATION SICKNESS) (LEUCOPENIA) (BATYL ALCOHOL)**  
**(THIAZOLIDINECARBOXYLIC ACID)**

27.3500  
27.2400

40627

S/241/62/007/002/003/004  
1015/1215

AUTHORS: Rusanov, A. M., Mozharova, Ye. N., and Komarova, R. S.

TITLE: Chemicals employed in therapy of hemopoietic disorders due to ionizing radiation

PERIODICAL: Meditsinskaya radiologiya, v. 7, no. 2, 1962, 42-48

TEXT: The various drugs which have been tried for treating radiation leucopenia are not effective enough. This article deals with the results of experimental and clinical study of the therapeutic effect of leukogen (2-(alpha-phenyl-alpha-carbethoxymethyl)-thiazoliuine-4-carbonic acid) and batylol (alpha-octodecyl-glycerol ether-called batyl alcohol) in whole body and local irradiation. Experiments were carried out on 425 female guinea pigs weighing 300-400 g. The animals were subjected to a whole-body irradiation of 300 r at a dose rate of 23-25 r/min from a PYM-3 (RUM-3) apparatus. Leukogen and batylol were administred orally or injected i.m. in doses of 0.1-50.0 mg/kg b.w. Hematologic examinations of peripheral blood and bone marrow were performed before and after irradiation. The leucopoietic effect of leukogen was greater than that of batylol in the healthy control animals but the therapeutic effect of batylol was greater than that of leukogen in the irradiated animals. Batylol not only increased hemopoiesis but also brought about a lighter course of radiation sickness. The clinical trial of these chemicals was tried on 67 patients who developed leucopenia

Card 1/2



Chemicals employed in therapy...

S/241/62/007/002/003/004  
I015/I215

following radiotherapy. Leukogen was administered to 36 patients, in tablets of 20 mg t.i.d. Batylol was given to 31 patients 20-40 mg 1-2 times a day. The clinical experience also shows the advantages of batylol over leukogen. The possible mechanism of the effect of both chemicals is discussed. There are 4 figures

ASSOCIATION. Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii Ministerstva  
zdravookhraneniya SSSR (Central Institute of Medical Radiation Research, Ministry of  
Health USSR) Leningrad

SUBMITTED: November 21, 1961

Card 2/2

MOZHAROVA, Ye.N.; BELUGINA, Z.T.; VASIL'YEVA, Ye.I.; KOZYRINA, Z.N.;  
KUCHEROVA, T.D.; OPRYSKO, N.G.; SHESHINA, G.A.

Radiation therapy of nontumorous diseases and prospects for  
its evolution. Med. rad. 7 no.9:12-16 S '62. (MIRA 17:8)

1. Iz radioterapevticheskogo otdeleniya (zav. Ye.N. Mozharova)  
TSentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy  
radiologii Ministerstva zdravookhraneniya SSSR.

MOZHAROVA, Ye.N.; BELUGINA, Z.T.

Comparative data on the therapeutic value of various methods of radiation therapy of polycythemia vera and the sequelae of this treatment. Probl. gemat. i perel. krovi no.10:27-32 '62.

(MIRA 17:12)

1. Iz radioterapevticheskoy kliniki (zav. Ye.N. Mozharova) Tsentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy radiologii (direktor - Ye.I. Vorob'yev) Ministerstva zdoravookhraneniya SSSR.

MOZHAROVA, Ye.N.; KUCHEROVA, I.D.

Significance of radionuclide examination of the thyroid gland for  
the selection of treatment of acromegaly. Med. rad. 10 no.9:16-20  
(MIRA 18:10)  
S '65.

1. Radioterapevticheskoye i klinicheskoye otdeleniye (zav. Ye. N.  
Mozharova) Tsentral'nogo nauchno-issledovatel'skogo tsentra  
radiologicheskogo instituta (direktor - Ye. I. Vorob'yev)  
Ministerstva zdorookhraneniya SSSR.

STEPANOVA, O.S.; MOZHAROVSKAYA, A.I. [Mozharovs'ka, A.I.]

Development of organic chemistry in works of the scientists  
of the Odessa University. Nar.z ist.tekh. no.7:13-26 '61.  
(MIRA 15:2)

(Chemistry, Organic)

MOZHAROVSKAYA, A V

USSR/ Analytical Chemistry. Analysis of Organic Substances.

G-3

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27243.

Author : V.D. Bogatskiy, Z.D. Bogatskaya, A.V.  
Mozharovskaya.

Inst : Odessa University.

Title : Qualitative Determination of Small Amounts of Benzene.

Orig Pub: Tr. Odessk. un-ta, 1956, 146, ser. khim. n.,  
No. 5, 107 - 109.

Abstract: A method of determination of benzene (I) (0.1 to 0.001 g) based on 3 reactions was developed. These reactions are: the condensation reaction of I with phthalic anhydride (II) in presence of water free  $AlCl_3$ , the reaction of conversion of

Card 1/2

USSR/ Analytical Chemistry. Analysis of Organic  
Substances.

G-3

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27243.

forming o-benzoylbenzoic acid into anthraquinone, and the oxanthrol color reaction of anthraquinone. I, II and water free  $AlCl_3$  are carefully mixed in a test tube, the reaction mixture is kept  $\frac{1}{2}$  an hour at room temperature, cooled,  $H_2O$  is added and the mixture is treated with steam until the smell of I disappears, after which it is treated with soda solution and again with steam;  $Al(OH)_3$  is filtered off. The filtrate is acidified with hydrochloric acid, evaporated in a crucible, and 1 to 3 drops of  $H_2SO_4$  (sp. gr. 1.84) are added to the residue, the mixture is heated 15 to 20 min. at  $150^\circ$ ; 1 ml of water, 2 drops of alkali and Zn dust are added, while the mixture is cooling. If heated to the boiling point, red coloration of athrahydorquinone will appear.

Card 2/2

*Mozharovskaya, A V*

AUTHORS: Stepanova, O.S. and Mozharovskaya, A.V. 73-1-23/26

TITLE: Stereochemical Researches of P. I. Petrenko-Kritchenko.  
(~~Store~~khimicheskiye raboty P. I. Petrenko-Kritchenko).  
(1866-1944).

PERIODICAL: Ukrainskiy Khimicheskiy Zhurnal, 1957, Vol.23, No.1,  
pp. 122-127 (USSR)

ABSTRACT: Evaluation of the work in the field of stereochemistry  
commemorating the 90th anniversary of the birth of this  
scientist.  
There are 18 Slavic references.

AVAILABLE: Library of Congress

Card 1/1



КОСМАРОВСКАЯ, Л. С.

Вопросы теории и практики  
составления и использования  
карт-схем.

1. Космаровская, Л. С.

LYSUNKINA, V.A.; MOZHAROVSKAYA, N.L.

Clinical aspects of Q fever in Uzbekistan. Klin.med. 33 no.3:42-45  
Mr '55. (MLRA 8:5)

1. Iz Tashkentskego nauchno-issledovatel'skogo instituta vaksin i  
syveretek (dir. A.B.Ineganev, nauchnyy rukoveditel' prof. N.I.  
Khodukin)  
(Q FEVER, epidemiology,  
in Russia)

S/137/62/000/002/098/14  
A060/A101

18.80.00  
AUTHOR: Mozharovskiy, I. S.  
TITLE: Endurance of refractory materials under cyclic temperature variations.  
PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1962, 76-77, abstract 21515 ("Sb. nauchn. tr. aspirantov Kiyevsk. politekhn. in-ta", Kiyev, 1961, 133-142)  
TEXT: A set-up is designed and the methods are described for its use in carrying out tests for the study of the influence of various factors upon the endurance of materials under cyclic temperature loadings. With the set-up it is possible to produce thermal stresses differing in value and sign, by varying not only the temperature schedule but also the loading gradient at one and the same temperature schedule. The tests were carried out upon tubular specimens of steel 1X18H9T (1Kh18N9T). The strongest influence upon the endurance of materials is exerted by the maximum amplitude and the mean temperature of the cycle. It was established that the greater the initial irreversible damping energy per cycle, the lower is the number of cycles until destruction. There are 5 references.  
Ye. Assonova  
[Abstracter's note: Complete translation]  
Card 1/1

✓  
B

S/123/62/000/006/003/018  
A004/A101

18.8/00

AUTHOR: Meznarovskiy, K. S.

TITLE: The endurance of heat-resistant materials during cyclic temperature variations

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 6, 1962, 25-26.  
abstract 6A173 ("Sb. nauchn. tr. aspirantov Kiyevsk. politekhn.  
in-ta". Kiyev, 1961, 133-142)

TEXT: The author describes an installation for investigating the behavior of materials during cyclic heating and cooling within the elastic-plastic range under conditions of a uniaxial stressed state. The specimen is heated by passing electric current. The installation permits the regulation of the maximum and minimum temperature of the cycle, heating and cooling rate. A tubular thin-walled specimen 13 mm in diameter of 1X18-9T (1Kh18N9T) grade steel of 1 mm wall thickness was investigated. The temperature variations during one cycle are recorded by an automatic recorder. It was revealed that the strongest effect on the thermal fatigue is exerted by the amplitude of the temperature cycle, maximum cycle temperature and also by the cycle average temperature. It was

Card 1/2

The endurance of heat-resistant materials ...

S/123/62/000/006/003/018  
A004/A101.

found that the higher the initial irreversible absorption energy for one cycle,  
the less is the number of cycles till destruction.

[Abstracter's note: Complete translation]

Card 2/2

L 44362-66 EWT(m)/EWP(t)/EWP(w)/EWT IJP(c) EM/JD/IW  
 ACC NR: AP6007290 SOURCE CODE: UR/0226/66/000/002/0069/0086  
 28 84/15

AUTHOR: Pisarenko, G. S. ; Mozharovskiy, N. S.

ORG: Institute for the Study of Materials, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR); Kiev Polytechnic Institute (Kiyevskiy politekhnicheskii institut)

TITLE: Fracture of high-temperature alloys under thermocyclic loads

SOURCE: Poroshkovaya metallurgiya, no. 2, 1966, 69-86

TOPIC TAGS: oscillograph, alloy, cyclic load, heat transfer, material fracture, turbine blade, nickel base alloy / N-700 oscillograph, 1Kh18N9T alloy, EI607 alloy

ABSTRACT: Studies on the thermal fatigue of real gas-turbine nozzle blades made of a Ni-base alloy were carried out on a gas-dynamic test rig. The blades were heated in a gas flow (373 ± 1173°K and 373 ± 1473°K) temperatures, pressures and velocities and cooled in a flow of compressed air, which corresponds to the conditions of service of turbine blading during turbine startup and shutdown. The periodic connection and disconnection of the combustion chamber produced near-natural heating and cooling cycles. The flow rate of hot gas in front of the leading edges of the blades was 120 m/sec. The temperature field over the blade cross section

Card 1/3

L 44362-66

ACC NR: AP6007290

was investigated with the aid of chromel-alumel thermocouples and recorded on photosensitive paper with the aid of a N-700 oscillograph. Analysis of the oscillograms revealed (Fig. 1)

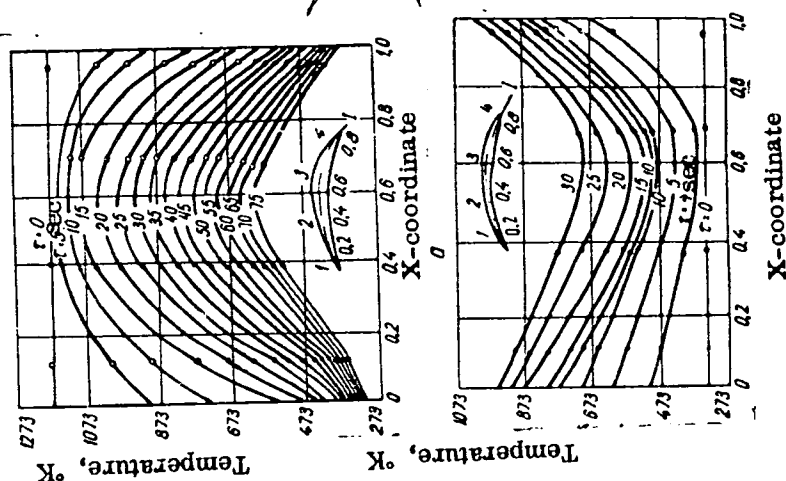


Fig. 1. Experimental curves of temperature distribution over the mean cross sectional area of turbine blades made of Ni-base alloy;

a - during cooling; b - during heating

Card 2/3

L 44362-66

ACC NR: AP6007290

that the heating and cooling rates differ for the leading and trailing edges of the blades and hence the temperature stresses also differ. Calculations performed by the method of successive approximations showed that the concomitant plastic deformations produce residual stresses which cause the metal to flow alternately in one direction and another. These reversals of the flow of metal due to temperature-induced stresses transcend the yield point of the material at a given temperature and, following a comparatively small number of heat transfers, lead to the formation of cracks at the metal surface and hence also reduce the metal's strength. Thus, e.g. tests of the nozzle blades cyclically heated in the temperature regime of  $373 \approx 1173^\circ\text{K}$  led to no cracks following 150 heat-transfer cycles, but when performed in the regime of  $373 \approx 1473^\circ\text{K}$  they resulted in the formation of a network of fatigue-type cracks on the blade edges after as few as 40 heat-transfer cycles. Formulas relating the irreversibly absorbed energy  $W$  per thermal (heat transfer) loading cycle to the number  $N$  of these cycles are derived and employed to predict the number of cycles until fracture, and hence also the service life of such alloys as Kh18N9T and EI607, as confirmed by experimental findings. Orig. art. has: 10 figures, 60 formulas.

SUB CODE: 11 13/ SUBM DATE: 15Jan65/ ORIG REF: 006/ OTH REF: 004/

Card 3/3 hs



MOZHAROVSKIY, P. S.

PA 19T102

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USSR/Radio Transmitters  
Communications - Development

Dec 1946

"Experiments on the Use of Non-Linear Feed Back in Transmitters," P. S. Mozharovskiy, 2 pp

"Vestnik Svyazi - Elektro Svyaz'" No 12 (81)

Well illustrated article describes the experiments conducted at the Central Administration of Radio Communication and Radio Broadcasting, by Segal' in 1945. Short and long wave transmitters were used in the experiments. The theory is that a modulated high frequency current from the transmitter improves an opposite phase current upon the input of any cascade audio amplifier through the non-linear detector.

19T102

MOZHARSKIY, P.S.

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USSR/Electronics - Television  
Scanning Circuits

Jul 52

"Transformer for the Line-Scanning Oscillator,"  
P. Mozharskiy, Zelenogradskaya Station, Moscow Oblast

"Radio" No 7, p 49

Discusses problems involved in the design of a transformer for the line-scanning oscillator and describes transformer which will withstand 15 kv between the plate and output windings. This transformer provides a full line scan of a type 31KL1B kinescope and gives a rectified voltage of 12 kv in a doubler circuit.

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MOZHAROVSKY, P. S.  
USSR/Miscellaneous - Radio organizations

Card 1/1 Pub. 133 - 14/23

Authors : Mozharovsky, P. S., Moscow City Radio-Communications Administration, Chief Engineer

Title : On certain problems connected with improvements in the methods of work and reduction in operational costs of radio centers

Periodical : Vest. svyazi 8, page 21, Aug 1954

Abstract : From a technical and financial analysis of the work of radio centers, it was found that the high operating cost of radio centers was due mainly to frequent interruptions of work caused by obsolete and worn-out radio equipment. Special financial outlays for inspection work, required in case of work interruptions, was also a contributing factor to high cost. Inspections, however, were not too reliable as such, due to the lack of qualified inspectors. On the basis of the above analysis, new methods for training technical inspectors together with the replacement of old radio equipment, was proposed.

Institution : ...

Submitted : ...

KAFTANOV, S.V., red.; KARTSOV, N.P., red.; SAKONTIKOV, M.I., red.;  
GLYZER, M.S., red.; MOZHAROVSKIY, P.S., red.; DUBSON, Ya.,  
tekhred.

[Radio and television in the U.S.S.R.] Radio i televidenie v  
SSSR. Moskva, 1960. 164 p. (MIRA 13:6)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po radio-  
veshchaniyu i televideniyu. 2. Predsedatel' Gosudarstvennogo  
komiteta po radioveshchaniyu i televideniyu pri Sovete Ministrov  
SSSR (for Kaftanov).

(Radio)

(Television)

MOZHAROVSKIY, P.

Development of television engineering. Tekh. radioveshch. i  
telev. no.2:86-100 '63. MIRA 18:3

1. Glavnyy inzh. tekhnicheskogo upravleniya Gosudarstvennogo  
komiteta Soveta Ministrov SSSR po radioveshchaniyu i tele-  
videniyu.

MOZHAROVSKIY, N. S., Cand. Tech. Sci. (diss) "Investigation of Thermal Obsolescent of Heat-Resistant Materials, " Kiev, 1961, 18 pp. (Acad. of Sci. UkrSSR, Inst. of Metallic Ceramics and Special Alloys) 200 copies (KL Supp 12-61, 270).

TRET'YACHENKO, G.N.; KRAVCHUK, L.V.; MOZHAROVSKIY, N.S.

Thermal fatigue of ceramic metal materials. Porosh. met. no.4:  
94-97 J1-Ag '61. (MIRA 10:5)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.  
(Ceramic metals--Testing)  
(Metals, Effect of temperature on)

MOZHAROVSKIY, N.S. [Mozharova'kiy, M.S.], PISARENKO, G.S. [Pysarenko, H.S.]

Plastic deformations under alternating stress and their effect on metal failure during cyclic application of thermal stress.  
Top. AN URSR no.10:1322-1328 '62. (MIRA 1962)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.
2. Chlen-korrespondent AN UkrSSR (for Pisarenko).



MOZHAROVSKIY, N.S., kand. tekhn. nauk

Thermal fatigue of nozzle blades of gas turbines under almost  
operating conditions. Izv. vys. ucheb. zav.; mashinostr. no. 7:72-  
75 '63. (MIRA 16:11)

1. Kiyevskiy politekhnicheskii institut.

MOZHAROVSKIY, N.S., kand.tekhn.nauk

Effect of alternating plastic deformations on metal breakdown  
conditions due to cyclic heating. Izv.vys.ucheb.zav.; mashinostr.  
no.8:110-116 '63. (MIRA 16:11)

1. Kiyevskiy politekhnicheskiy institut.

MOZHAROVSKIY, N.S.

Problem of the thermal fatigue of alloys taking boundary  
conditions into account. Zav. lab. 29 no.6:743-746 '63.  
(MIRA 16:6)

1. Kiyevskiy politekhnicheskii institut.  
(Heat resistant alloys---Testing)

L 40320-65 EWT(m)/EWP(w)/EWA(d)/EPR(t)/EWP(t)/EWP(b) JD/EM  
 S/0021/64/000/007/0893/0896 32  
 ACCESSION NR: AP4042820

AUTHOR: Pysarenko, G. S. (Pisarenko, G. S.) (Corresponding member AN UkrSSR);  
 Mozharovskiy, M. S. (Mozharovskiy, N. S.) 31  
 B

TITLE: Hysteresis energy as the basic criterion of metal failure in cyclic uni-  
 axial thermal loading 16

SOURCE: AN UkrSSR. Dopovid, no. 7, 1964, 893-896

TOPIC TAGS: metal fatigue, metal failure, hysteresis energy, metal failure  
 criterion, irreversible absorption energy, elastic hysteresis, stress, strain,  
 deformation, uniaxial thermal loading 24

ABSTRACT: The basic regularities of thermal fatigue are discussed and formulas  
 for irreversible absorbed energy, hysteresis energy, heating-cooling cycle, total  
 accumulation of irreversible absorbed energy at complete thermal fatigue, and re-  
 lationship between total accumulation prior to complete thermal fatigue are derived.  
 It is shown that the specific irreversible absorbed energy in the area of the  
 hysteresis loop which takes into account stress and deformation must be considered  
 the basic criterion of metal failure in cycle thermal loading. Orig. art. has: 19  
 formulas and 3 figures.

Card 1/2